

IN THE CLAIMS

*The status of the claims as presently amended is as follows:*

1. (*Currently Amended*) An apparatus for arranging music score displaying data for displaying a music score on a given music score display area in one or more staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, said apparatus comprising:

~~a music performance representing data~~ an input device which inputs data representing a music performance in a plurality of measures of music progression; and

a controller comprising:

a musical score notational element determining device which determines music score notational elements necessary for displaying a music score for each of said measures based on ~~said the input~~ music performance representing data;

a display size determining device which determines display sizes of said music score notational elements to be displayed on said display area;

a horizontal length determining device which determines a horizontal length of the music score to be displayed on said display area;

a measure[[s]] apportioning device which calculates, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures, and apportions said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed such that the music score notational elements of each of said measures ~~shall be~~ are placed on the apportioned staff tier in a length of at least said minimum horizontal length ~~or more, measure by measure while each of said measures is positioned only on a single staff tier and not spanning across multiple staff tiers~~; and

a music score display data output device which outputs music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures by said measure[[s]] apportioning device.

2. (*Currently Amended*) An apparatus as claimed in claim 1, wherein said music score notational elements ~~are of at least one kind selected from clefs, bar lines, key signatures, time signatures, notes, rests, dynamic marks, repeat signs and staff lines.~~

3. (*Original*) An apparatus as claimed in claim 1, wherein said display size determining device includes controls to be operated by a user for determining the display sizes of said music score notational elements.

4. (*Currently Amended*) An apparatus as claimed in claim 1, wherein the music score is to be displayed in tiers of musical staves on a page or pages, each page having said music score display area, and wherein ~~said apparatus controller~~ further ~~comprising~~ comprises:

a vertical length determining device which determines a vertical length of the music score to be displayed on said display area; and

a staff tiers apportioning device which calculates, for each of said staff tiers based on said determined display sizes, a maximum vertical length for placing all the music score notational elements in the measures apportioned for the staff tier by said measures apportioning device, and apportions said staff tiers for said page based on said calculated maximum vertical length of each of said staff tiers and said determined vertical length of the music score to be displayed such that a number of staff tiers ~~shall be~~ is placed within said music score display area on the page[[:]],

wherein said music score display data output device outputs music score display data for displaying the music score for the page by placing the music score notational elements in the staff tiers for which the measures are apportioned by said measure[[s]] apportioning device according to the apportionment of the staff tiers as apportioned by said staff tiers apportioning device.

5. (*Currently Amended*) An apparatus as claimed in claim 4, wherein said staff tiers apportioning device calculates said maximum vertical length by calculating the highest position of an notational element and the lowest position of an notational element among said notational elements to be placed in each of said staff tiers.

6. (*Currently Amended*) An apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a display device, said apparatus comprising:

~~a music performance representing data~~ an input device which inputs data representing a music performance in a plurality of measures of music progression; and

a controller comprising:

a display size determining device which determines display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data;

a measure[[s]] length calculating device which calculates, for each of said measures based on said determined display sizes of the music score notational elements, a horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements; and

a measure apportioning device which apportions the measures for each of said staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers; and

a music score display data output device which outputs music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures.

7. (*Currently Amended*) An apparatus as claimed in claim 6, ~~further comprising: a display-adjusting device which~~ wherein the measure apportioning device adjusts said music score display data such that a music score is displayed in a plurality of staff tiers on said display device on a page-by-page basis, ~~apportions the measures among said staff tiers such that a single measure shall not extend over two staff tiers,~~ and apportions said music score notational elements to be placed in a uniform distribution through the staff tier with respect to the music progression.

8. (*Currently Amended*) An apparatus as claimed in claim 6, wherein said music score notational elements are ~~of at least one kind selected from clefs, bar lines, key signatures, time signatures, notes, rests, dynamic marks, repeat signs and staff lines.~~

9. (*Currently Amended*) A computer-readable storage medium storing a computer program ~~containing program instructions executable by a computer~~ for arranging music score displaying data for displaying a music score on a given music score display area in one or more staff tiers,

each tier containing one or more measures of variable lengths as justified for the display area, ~~and causing said computer to execute the computer program containing instructions for:~~

inputting data representing a music performance in a plurality of measures of music progression;

determining music score notational elements necessary for displaying a music score for each of said measures based on said music performance representing data;

determining display sizes of said music score notational elements to be displayed on said display area;

determining a horizontal length of the music score to be displayed on said display area;

calculating, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures, ~~and~~

apportioning said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed such that the music score notational elements of each of said measures ~~shall be~~ are placed on the apportioned staff tier in a length of at least said minimum horizontal length ~~or more, measure by measure~~ while each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers; and

outputting music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures ~~by said measures-~~ apportioning step.

10. (*Currently Amended*) A computer-readable storage medium storing a computer program ~~containing program instructions executable by a computer~~ for arranging music score displaying data for displaying a music score having measures of music progression on a display device, ~~and causing said computer to execute the computer program containing instructions for:~~

inputting data representing a music performance in a plurality of measures of music progression;

determining display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data;

calculating, for each of said measures based on said determined display sizes of the music score notational elements, a horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements; ~~and~~

apportioning the measures for each of said staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers; and

outputting music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures.